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FIG. 1

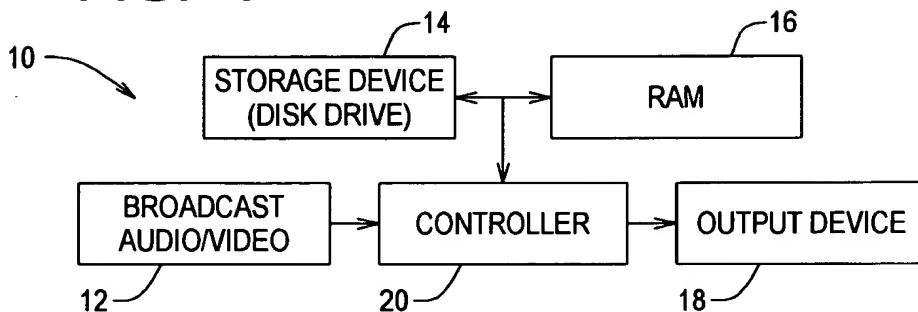


FIG. 2

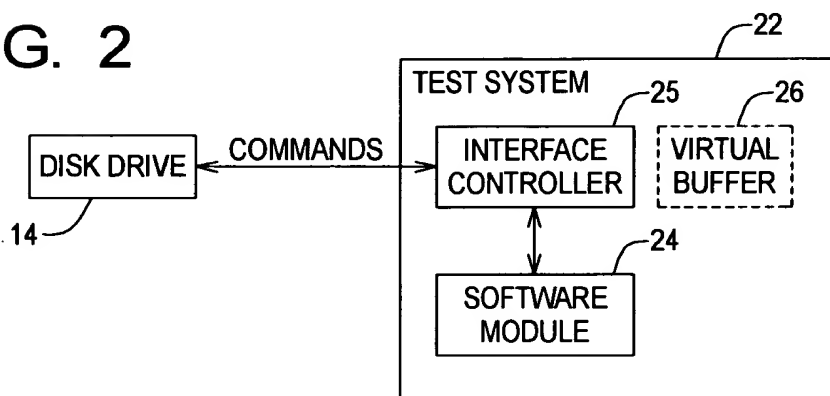


FIG. 3

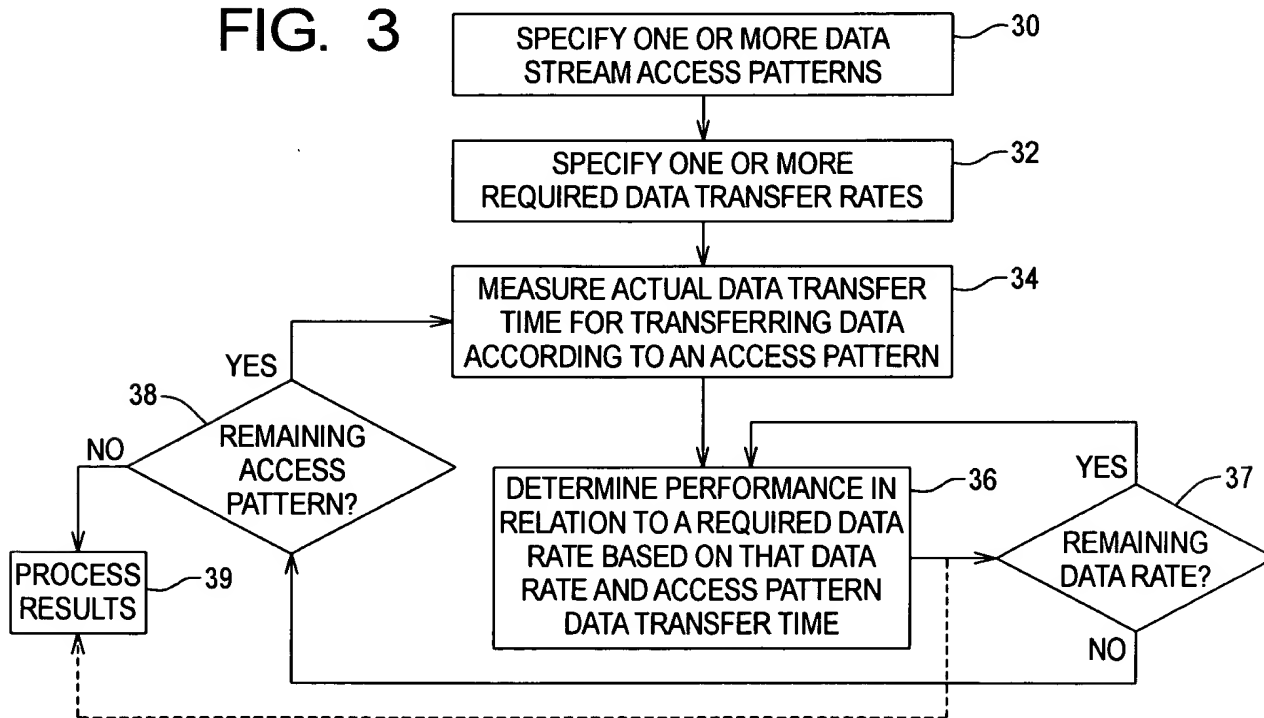


FIG. 4
THROUGHPUT TESTING

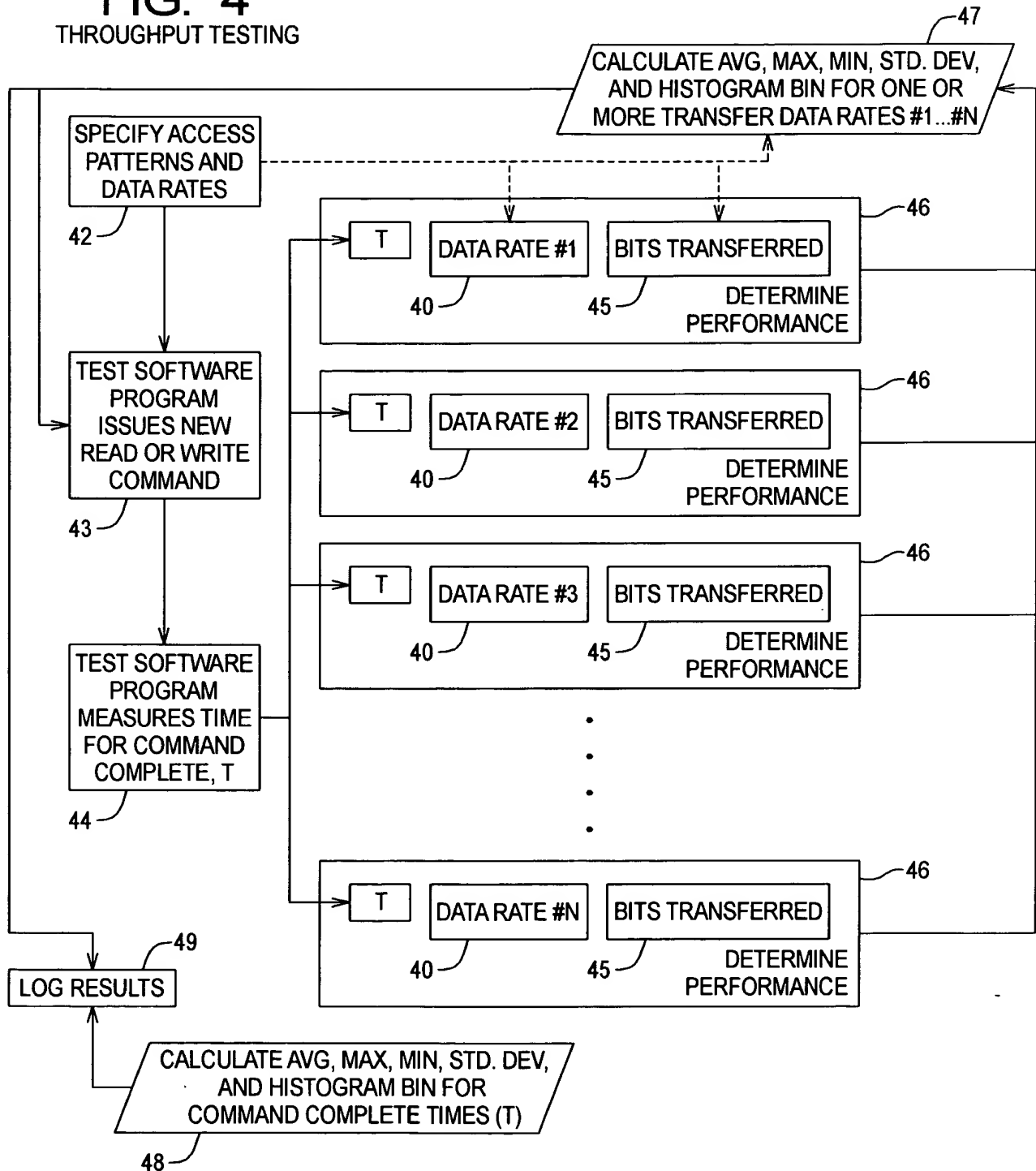


FIG. 5A

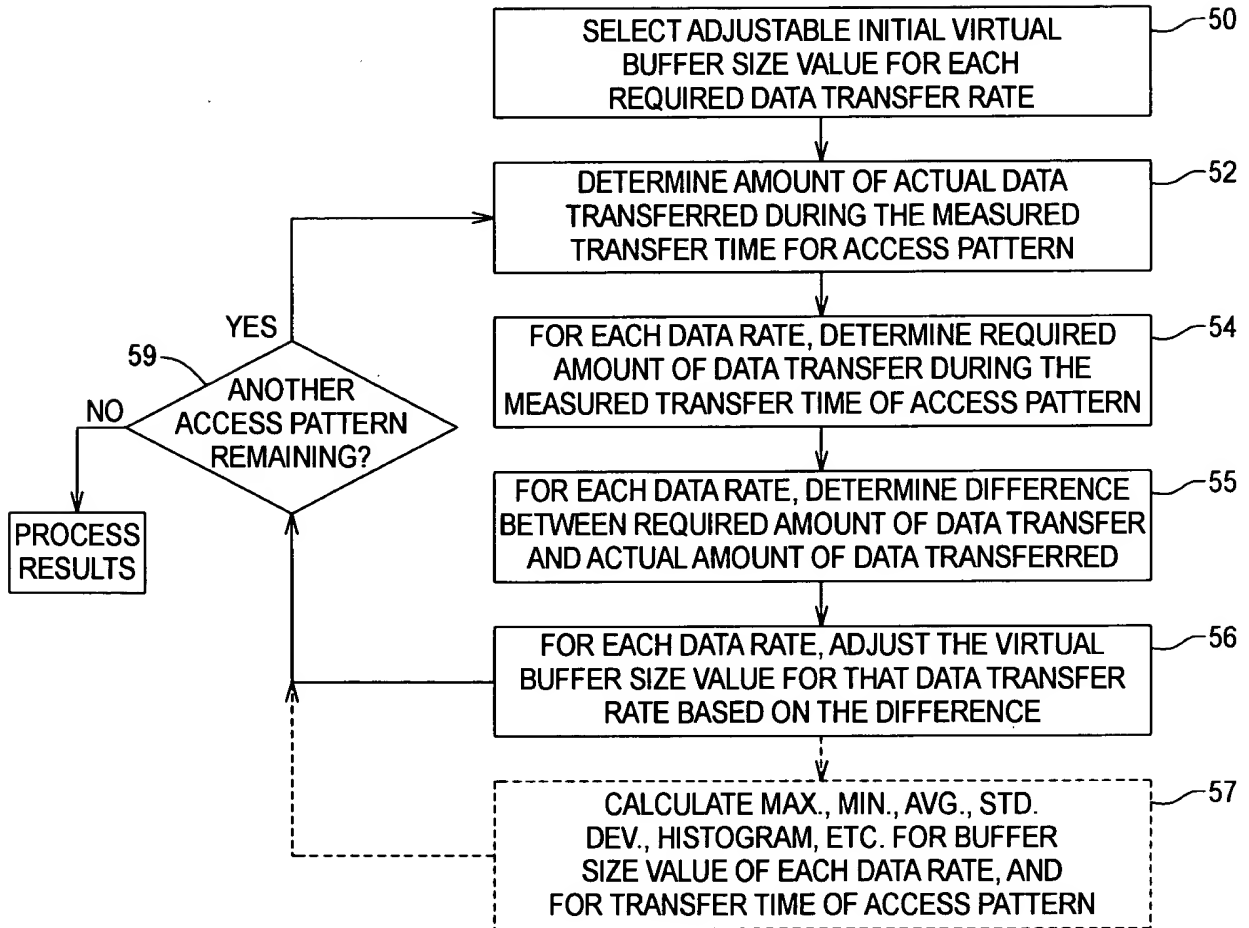
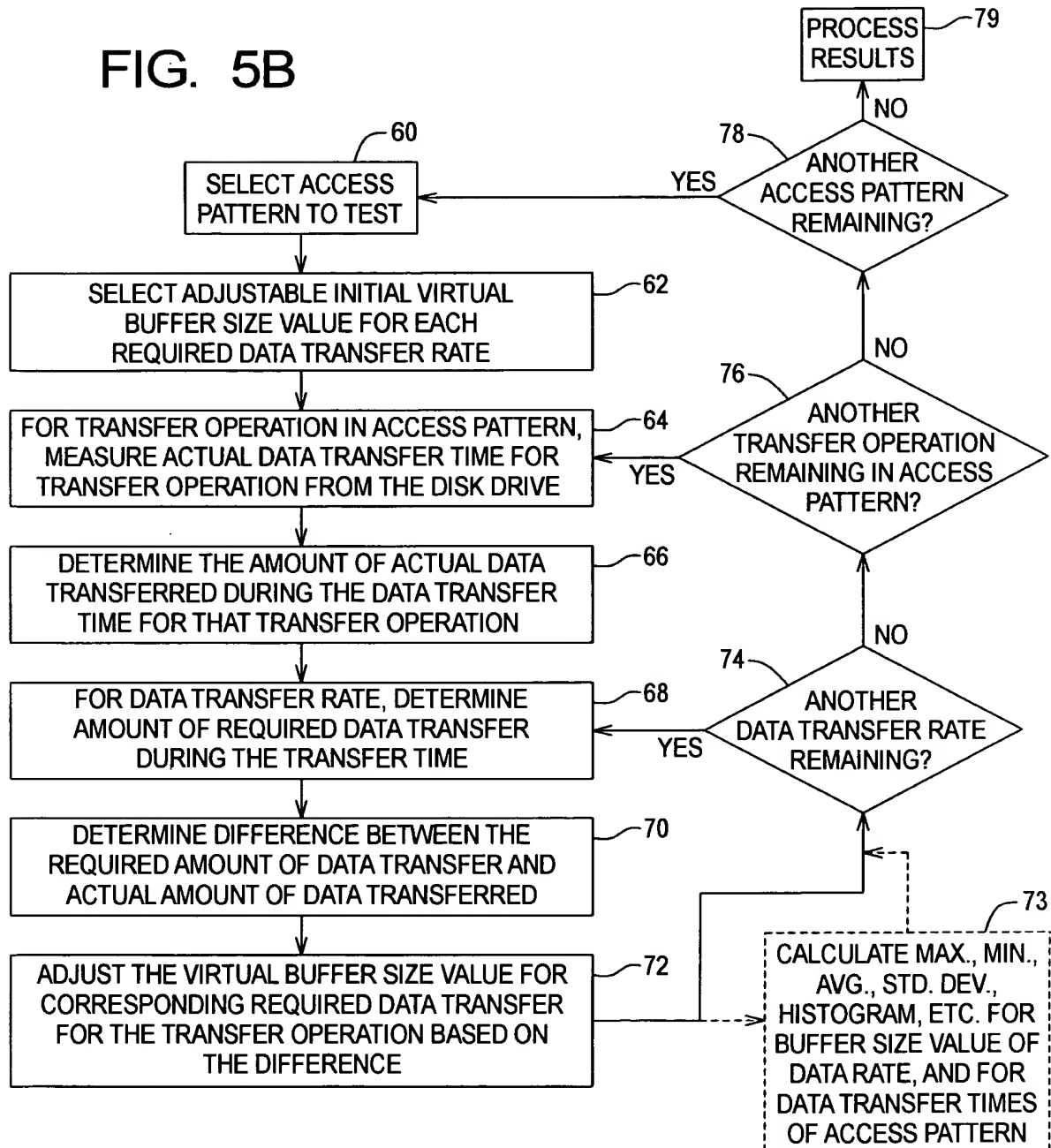
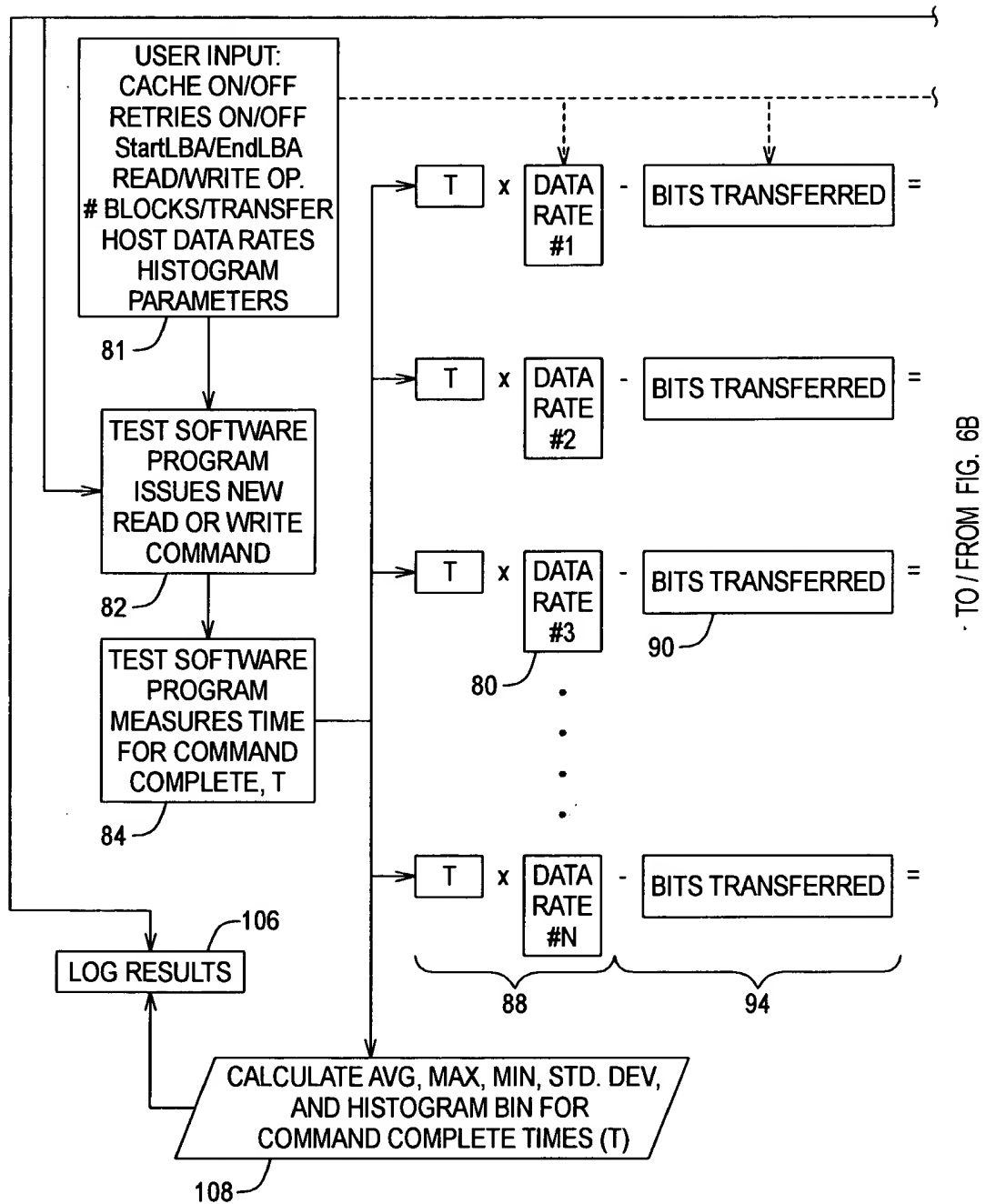


FIG. 5B



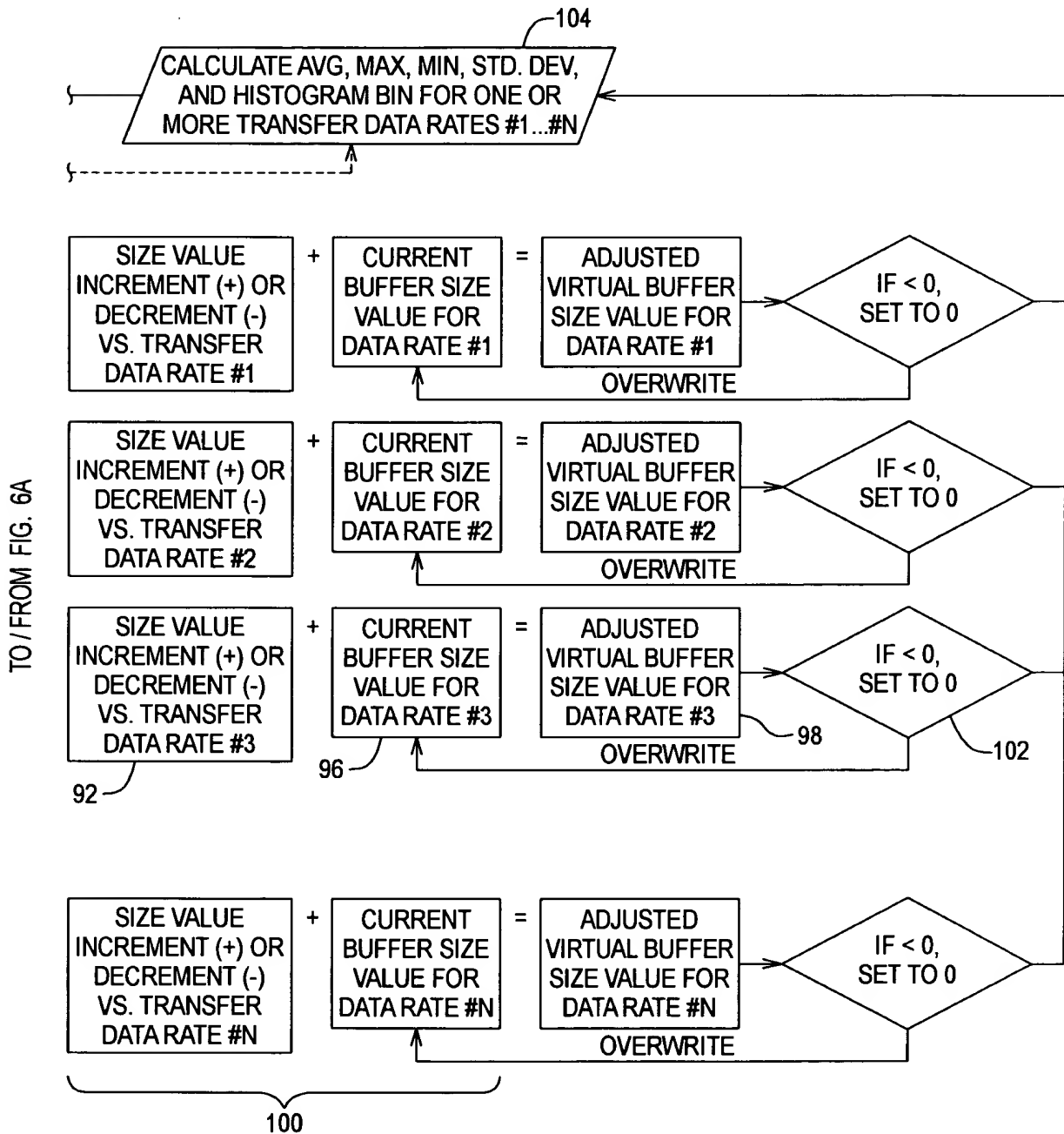
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FIG. 6A
THROUGHPUT TESTING USING
VIRTUAL BUFFER MODELS



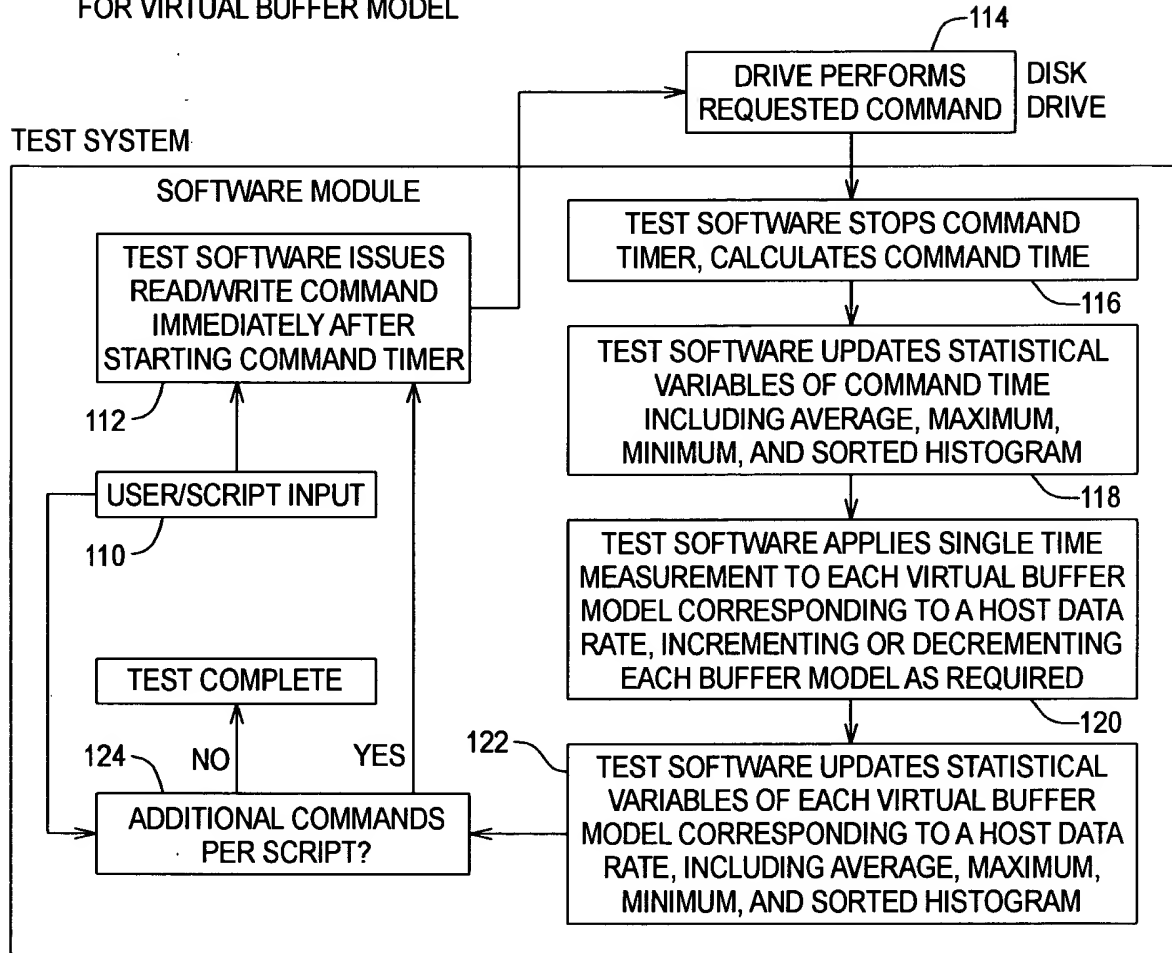
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FIG. 6B



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FIG. 7
TEST SOFTWARE FUNCTION FLOWCHART
FOR VIRTUAL BUFFER MODEL



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FIG. 8A

TO / FROM FIG. 8B

TABLE 1

ACCESS PATTERN	TEST TIME (MINUTES)	RD. OR WRT.	SILENT SEEK	CACHE R&W	nb	TOTAL XFER'S	STREAM1 START
OD SEQUENTIAL	0.7	WRT.	ON	ON	256	983040	0
ID SEQUENTIAL	0.6	RD.	ON	ON	256	983040	maxlba- 1500001
ID SEQUENTIAL	0.7	WRT.	ON	ON	256	983040	maxlba- 1500001
DUAL STREAM FS	22.2	WRT./ WRT.	OFF	ON	4096	1572864	0
DUAL STREAM O.D. 1/3	20.2	WRT./ RD.	OFF	ON	4096	1572864	0
DUAL STREAM I.D. 1/3	21.2	WRT./ RD.	OFF	ON	4096	1572864	2/3 x maxlba
RANDOM FS	1.7	RD.	OFF	OFF	256	983040	0
RANDOM FS	1.7	WRT.	OFF	OFF	256	983040	0
RANDOM FS	3.2	RD.	OFF	ON	1024	3932160	0

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FIG. 8B

STREAM2	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR
START	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
N/A								102	100	98	96	94	80	70	60	50	40	30
N/A											135	130	125	120	100	80	60	40
N/A								102	100	98	96	94	80	70	60	50	40	30
max/ba-1500001					100	98	96	94	92	90	88	86	70	60	50	40	30	20
max/ba/3	110	108	106	104	102	100	98	96	94	92	90	80	70	60	50	40	30	20
max/ba-1500001					100	98	96	94	92	90	88	86	70	60	50	40	30	20
max/ba												44	42	40	30	25	20	10
max/ba												44	42	40	30	25	20	10
max/ba						92	90	88	86	84	82	80	70	60	50	40	30	20

TO / FROM FIG. 8A

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FIG. 9

THROUGHPUT SUMMARY- TABLE 2

SECTORS PER TRANSFER (ACCESS UNIT)	STREAMING OPERATION	DATA THROUGHPUT PER STREAM (MEGABITS PER SECOND)
256	SEQUENTIAL	90 Mbps/50 Mbps*
	DUAL STREAM	15 Mbps
	RANDOM	20 Mbps
2048	SEQUENTIAL	NA
	DUAL STREAM	15 Mbps
	RANDOM	50 Mbps
4096	SEQUENTIAL	NA
	DUAL STREAM	NOT TESTED
	RANDOM	60 Mbps

* RESULTS INDICATE DATA CACHING ENABLED / DISABLED

THROUGHPUT CRITERIA

- > SEQUENTIAL TEST, VIRTUAL BUFFER < 1MB
- > DUAL STREAM TESTS, VIRTUAL BUFFER < 2MB (1MB PER STREAM)
- > RANDOM TESTS, VIRTUAL BUFFER < 2MB

FIG. 10

